

Demand Side Management Overview & Update

South Carolina
Public Service Commission
August 16, 2007



Demand Side Management

- Energy Efficiency
- Demand Response

Demand Side Management

DEMAND SIDE MANAGEMENT	
Demand Response	Energy Efficiency
<u>Direct Load Management</u> Control of customer heating, cooling and appliances.	<u>Building Envelope</u> Programs, standards and incentives to reduce the energy needs of a commercial or residential building structure.
<u>Contractual Load Reduction</u> Agreements to reduce load upon notification, normally applicable to large industrial companies	<u>Infrastructure/Equipment</u> Programs, standards and incentives designed to promote the adoption of more efficient heating, cooling and appliances
<u>Voluntary Price Response</u> Customer demand reduction in response to fixed or dynamic pricing signals.	
Education/Awareness Overall programs aimed at increasing awareness of energy issues and changing customer behaviors.	

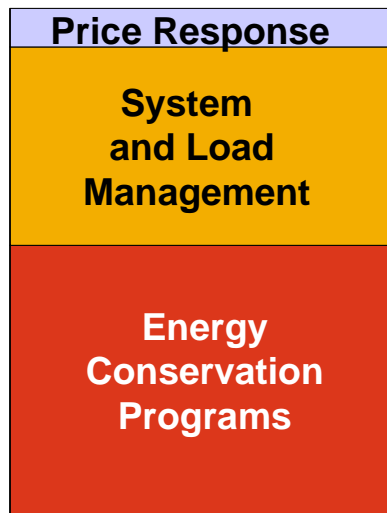
DSM Strategy - Why

- Changing Conditions
- Increasing Energy Cost
- Customer Expectations
- Balanced Solution to Load Growth

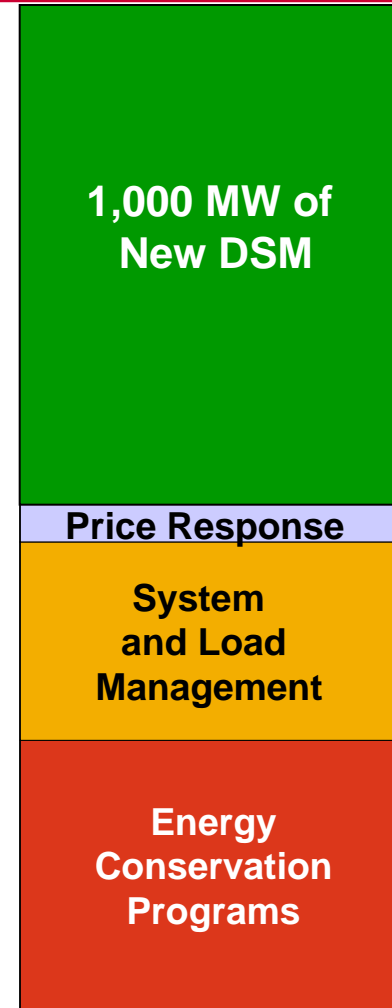


Progress Energy Commitment to DSM

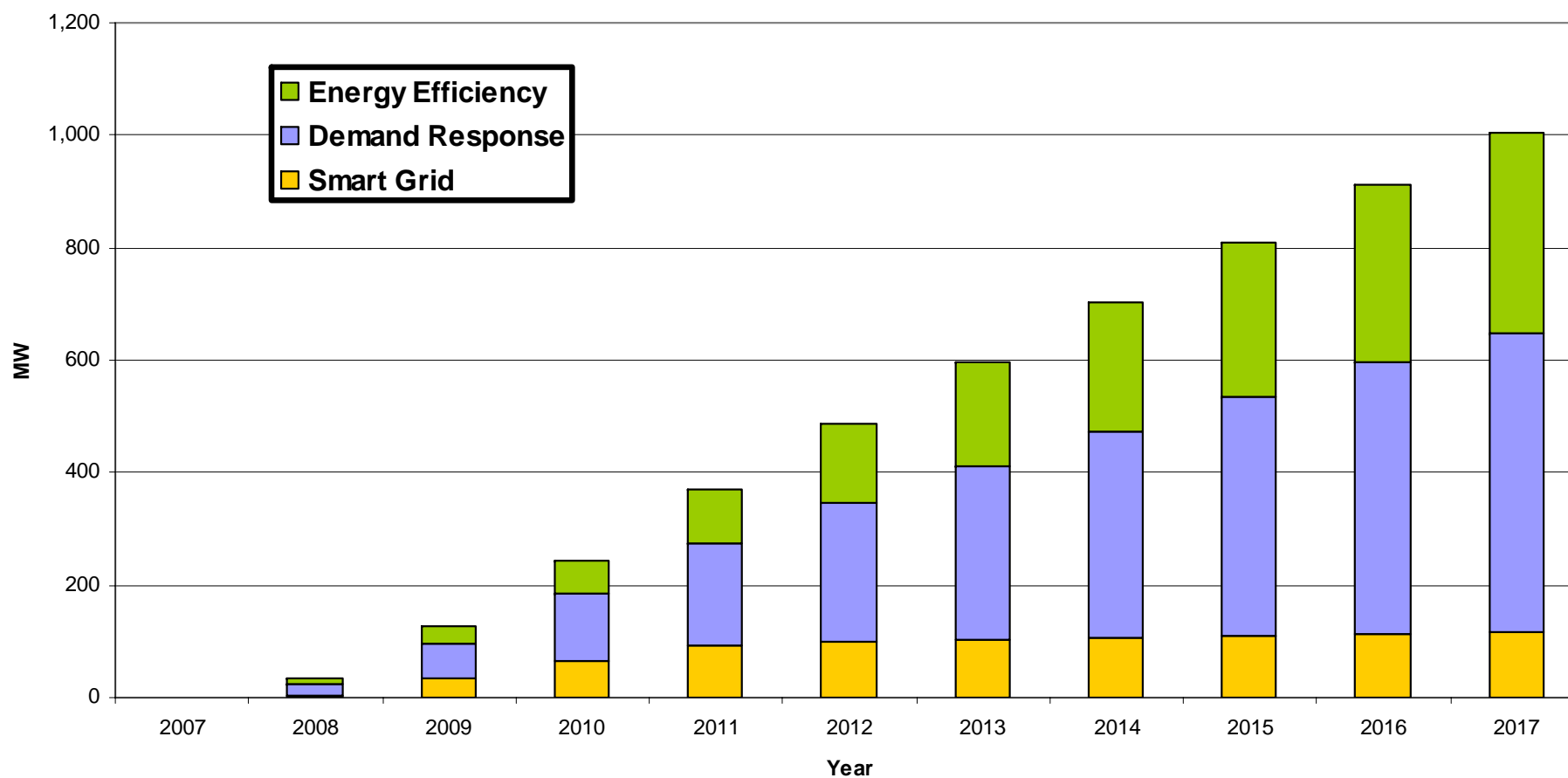
**1,000 MW of
Existing
Generation
Displacement**



**1,000 MW of
New DSM**

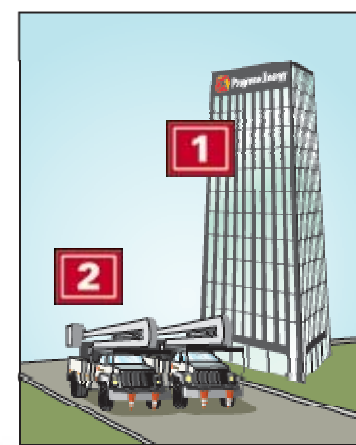
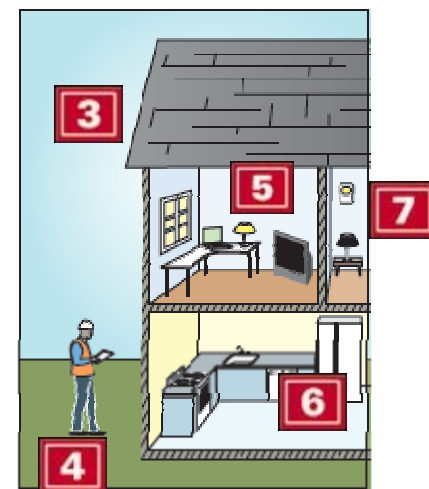
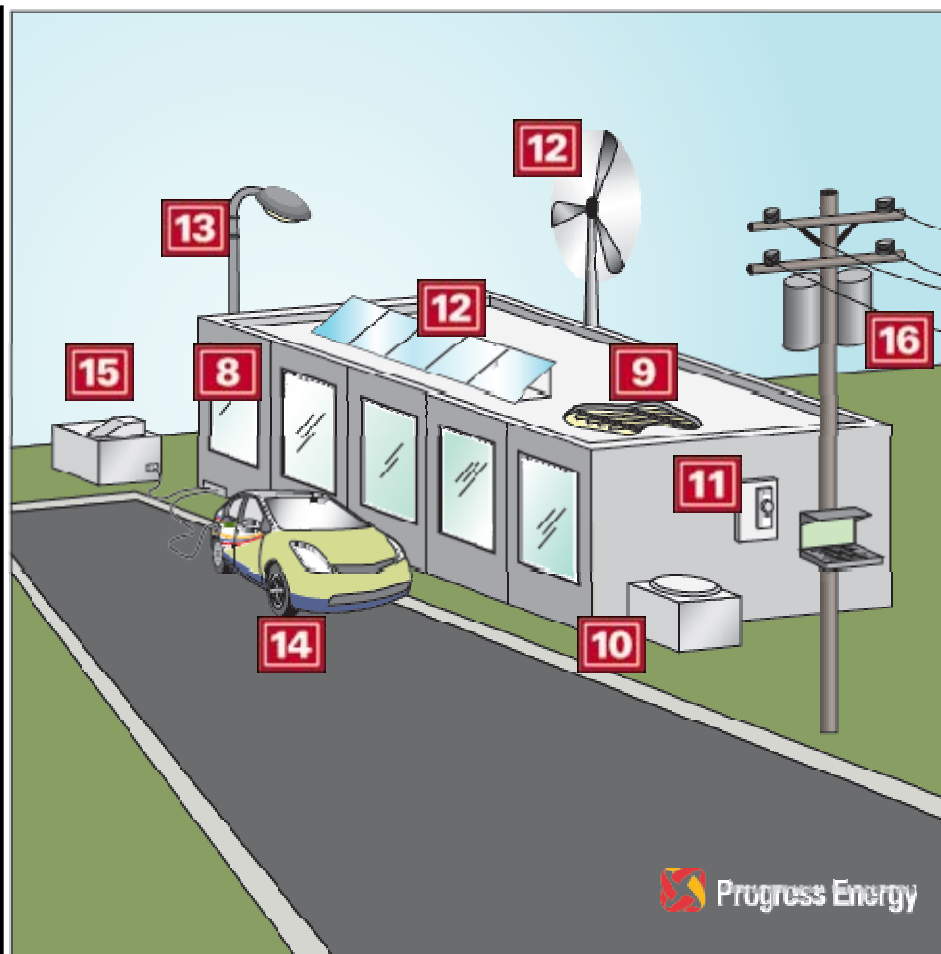


DSM Savings Forecast



DSM Scope

- 1) Progress Energy Facilities
- 2) Progress Energy Fleet
- 3) Residential Building Envelope
- 4) Home Energy Audits
- 5) Compact Fluorescent Bulbs
- 6) Energy Efficient Appliances
- 7) Smart Thermostats
- * Smart Pricing
- 8) Commercial Building Envelope
- 9) Fluorescent Lighting
- 10) Heating & Cooling
- 11) Smart Metering
- 12) Distributed Renewable Energy
- 13) Efficient Outdoor Lighting
- 14) Plug-In Hybrids
- 15) Distributed Generation
- 16) Intelligent Grid
- * Dynamic Pricing
- * Emerging Technologies



DSM Strategy – How

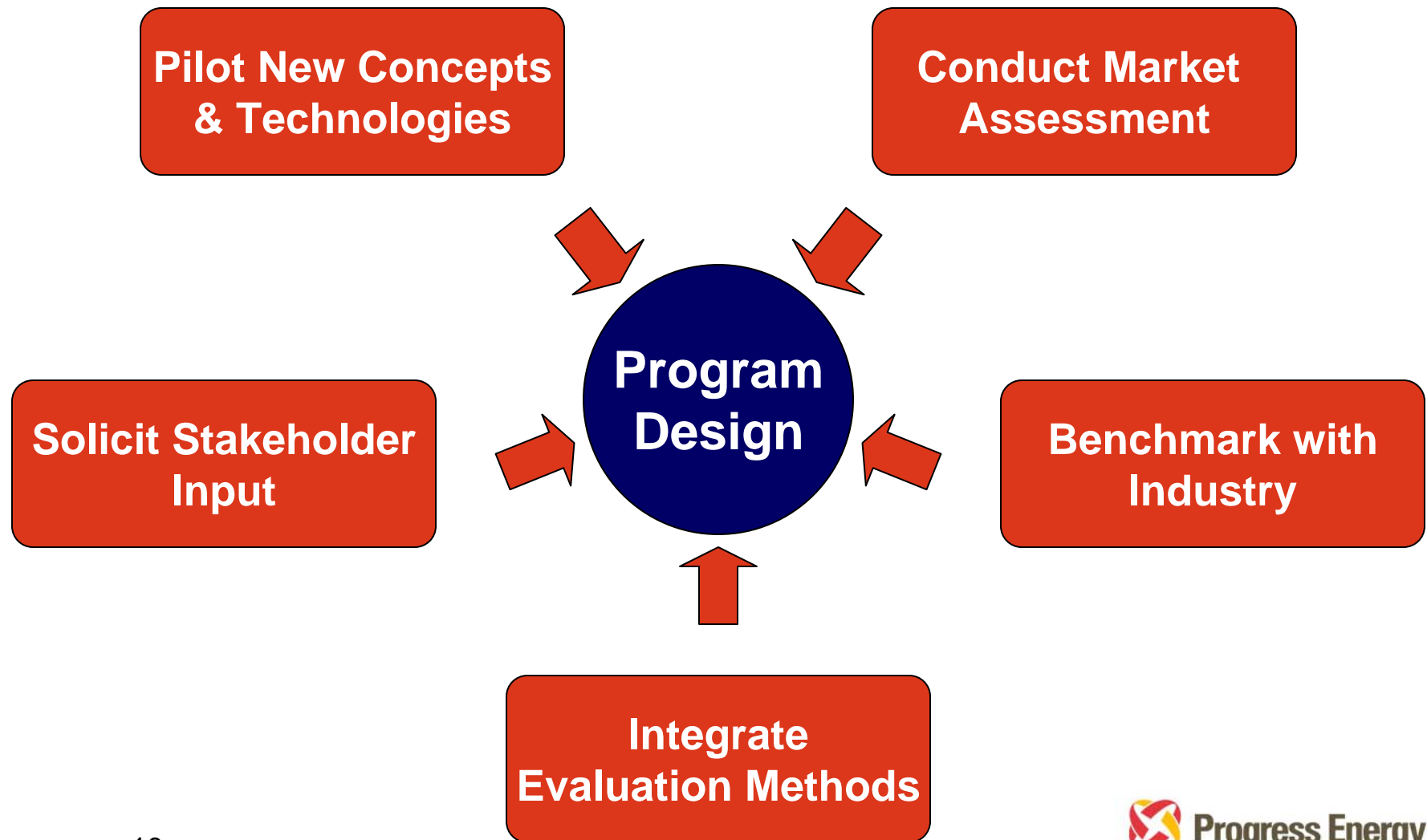
Participation is the Primary Driver for Success

- Develop broad portfolio of comprehensive programs
 - ◆ Residential
 - ◆ Commercial, Industrial, & Governmental
 - ◆ Progress Energy Facilities & Fleet
- Increase awareness through education and outreach

DSM Program Guidelines

- Simple
 - ◆ Ensure that customers can easily understand
 - ◆ Make participation easy
 - ◆ Evolve to more comprehensive programs
- Cost-Effective
- Well-Managed
 - ◆ Focus on programs that are modular and quick to deploy
- Adequate service & delivery infrastructure
 - ◆ Maximize benefit from the marketplace

DSM Program Design Approach



Residential Programs

Demand Response

- Central AC Load Control*
- Water Heater Load Control*
- Critical Peak Pricing Pilot

Energy Efficiency Retrofit

- HVAC
- HVAC Tune-Up & Duct Repair*
- Envelope
- Lighting*
- Other

New Construction

- Energy Star Builder Rebates

Energy Education

- In-Home Energy Displays
- Audits
- Personalized Energy Reports
- Energy Education Expositions
- Trade Ally

Low-Income Initiatives

- Retrofit
- PHA Retrofit
- Personalized Energy Reports
- Energy Saving Kits

* Pilot - Programs Underway

Commercial, Industrial, & Governmental Programs

Demand Response

- Standby Generator Program
- Summer AC & WH Load Control
- TOU Rates

Energy Efficiency

- Comprehensive Retrofit
- Small C/I/G Retrofit
- High Efficiency HVAC rebates
- High Efficiency Lighting rebates
- Energy Efficient Motors
- Cool Roof
- New Construction
- Equipment Replacement / Remodel

Energy Education

- Walk-Through Audits
- Online Audits
- Energy Manager On-Loan Pilot
- Schools Benchmarking Program
- Energy Newsletters
- Energy Profiler On-line

PEC Facilities Initiatives

- Facility Retrofits
- Energy Audits
- Standby Generator
- Summer AC & WH Control
- Employee Awareness Program
- Employee Recognition



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*Requires Adobe® Flash 8
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Let's
get
started.



DISCUSSION